## Abstract of the Disclosure

A device for the UV treatment of fluids flowing in a flow channel, including a plurality of cylindrical low-pressure mercury UV emitters arranged in groups in the flow channel. The longitudinal axes of the UV emitters are disposed substantially parallel to one another such that the emitters of a given group are disposed in a plane. At least one elongated sensor arrangement monitors the operating state of the emitters, and is spaced from and parallel to one of the groups of the emitters. The sensor arrangement extends essentially transverse to the longitudinal axes of the emitters of the adjacent group, and is provided with a separate UV sensor for each emitter. At least one unit connected with the sensor arrangement controls and/or regulates the emitters.